



STATE OF MARYLAND

# DMMH

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**January 28, 2011**

## **Public Health & Emergency Preparedness Bulletin: # 2011:03** **Reporting for the week ending 01/22/11 (MMWR Week #03)**

### **CURRENT HOMELAND SECURITY THREAT LEVELS**

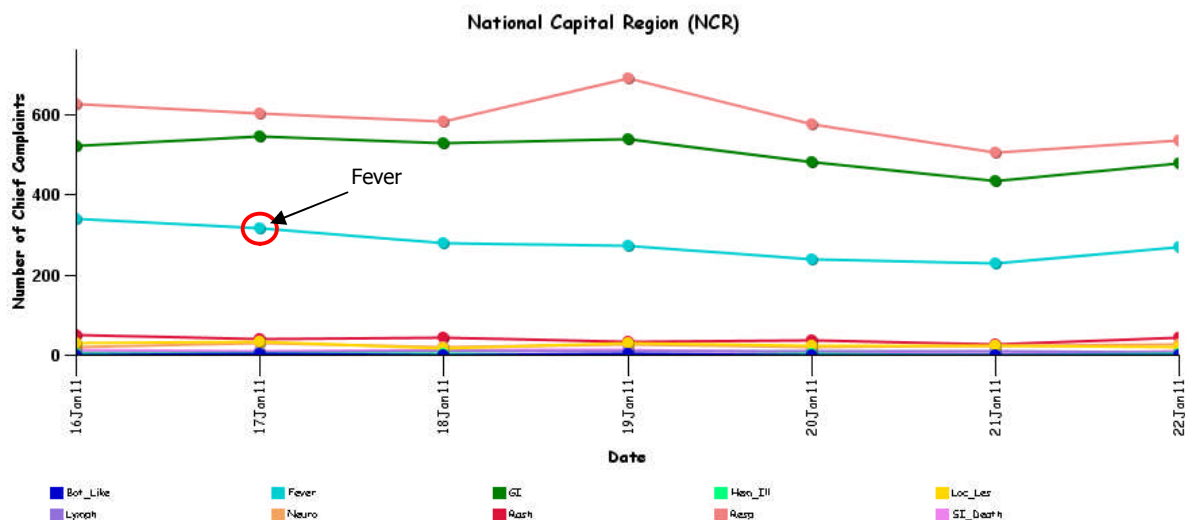
**National:** Yellow (ELEVATED) \*The threat level in the airline sector is Orange (HIGH)  
**Maryland:** Yellow (ELEVATED)

### **SYNDROMIC SURVEILLANCE REPORTS**

#### **ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):**

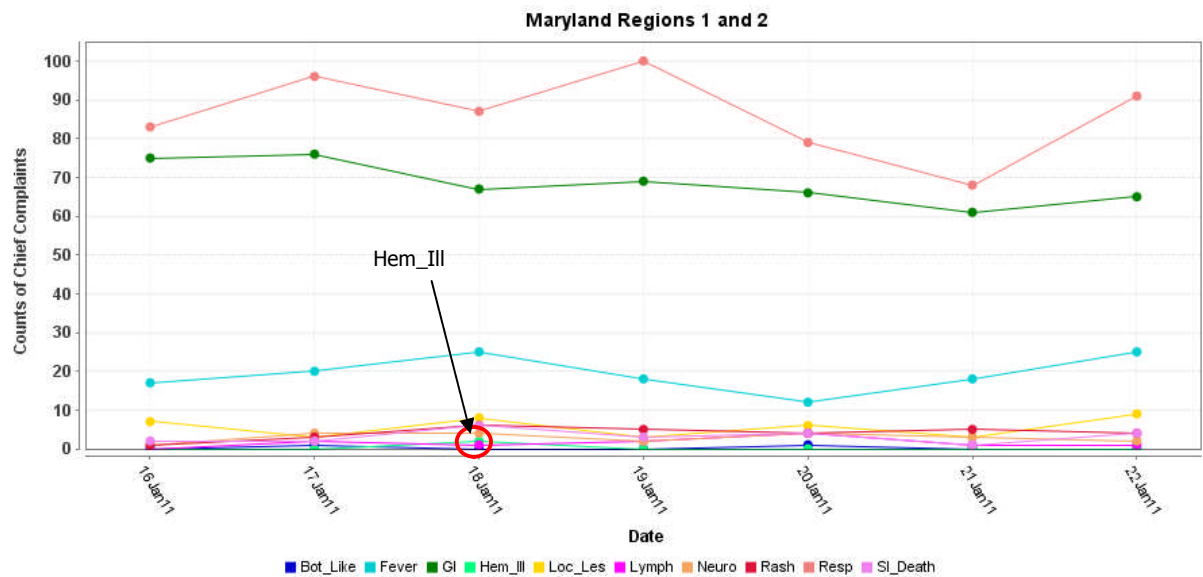
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

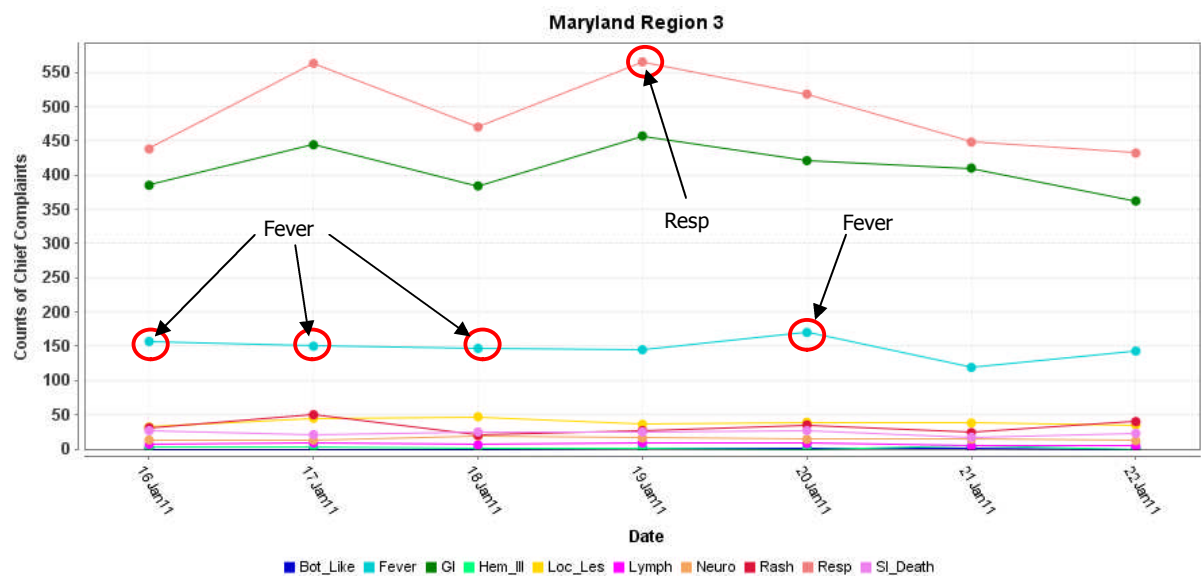


\*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

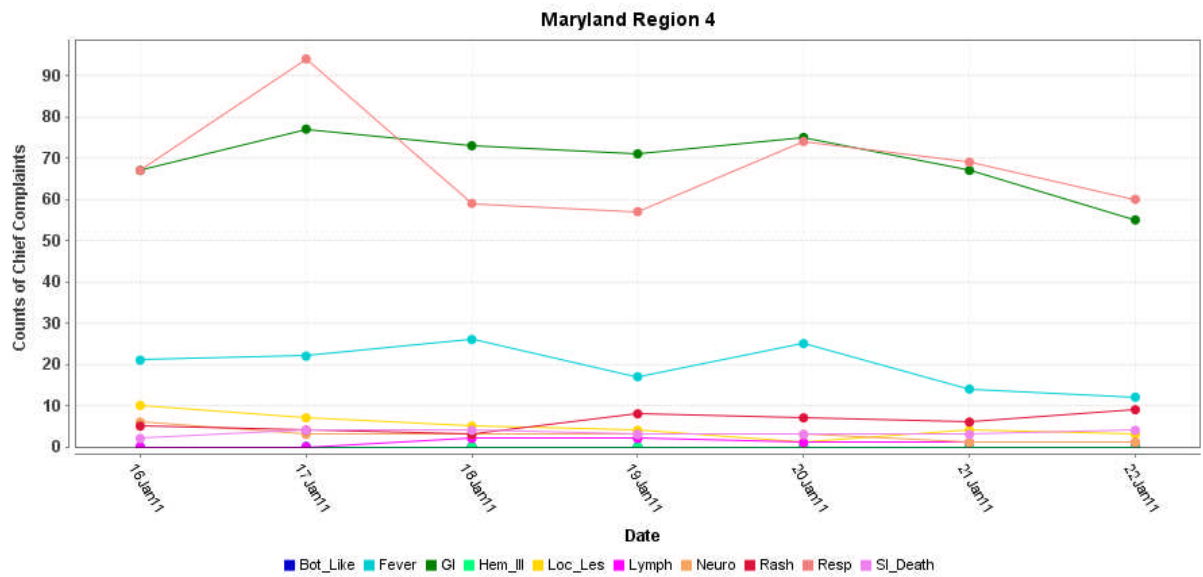
## MARYLAND ESSENCE:



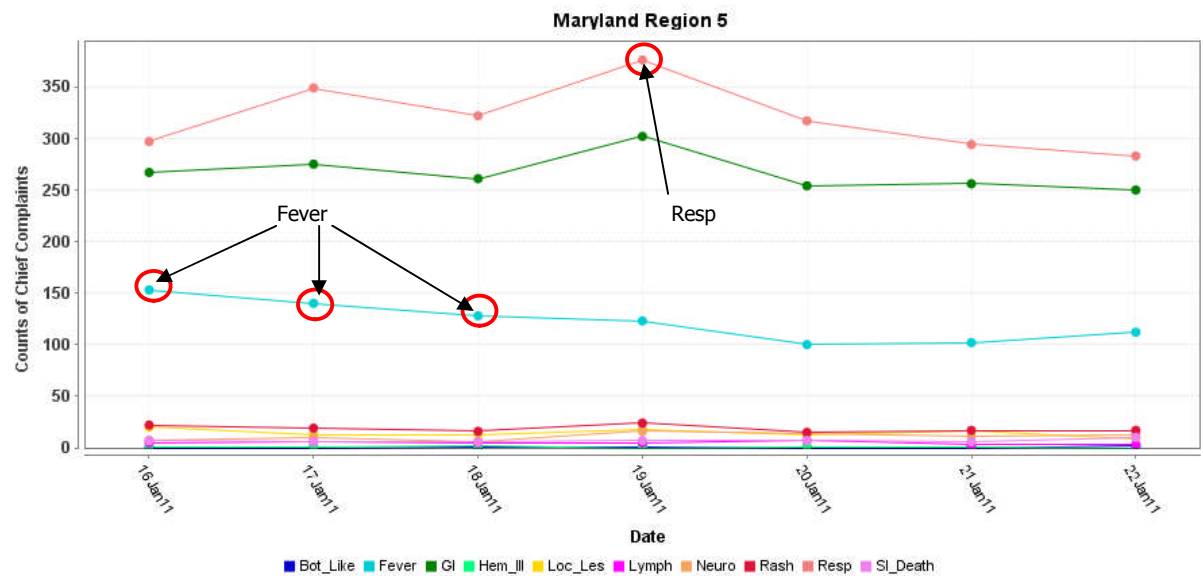
\* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



\* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



\* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE

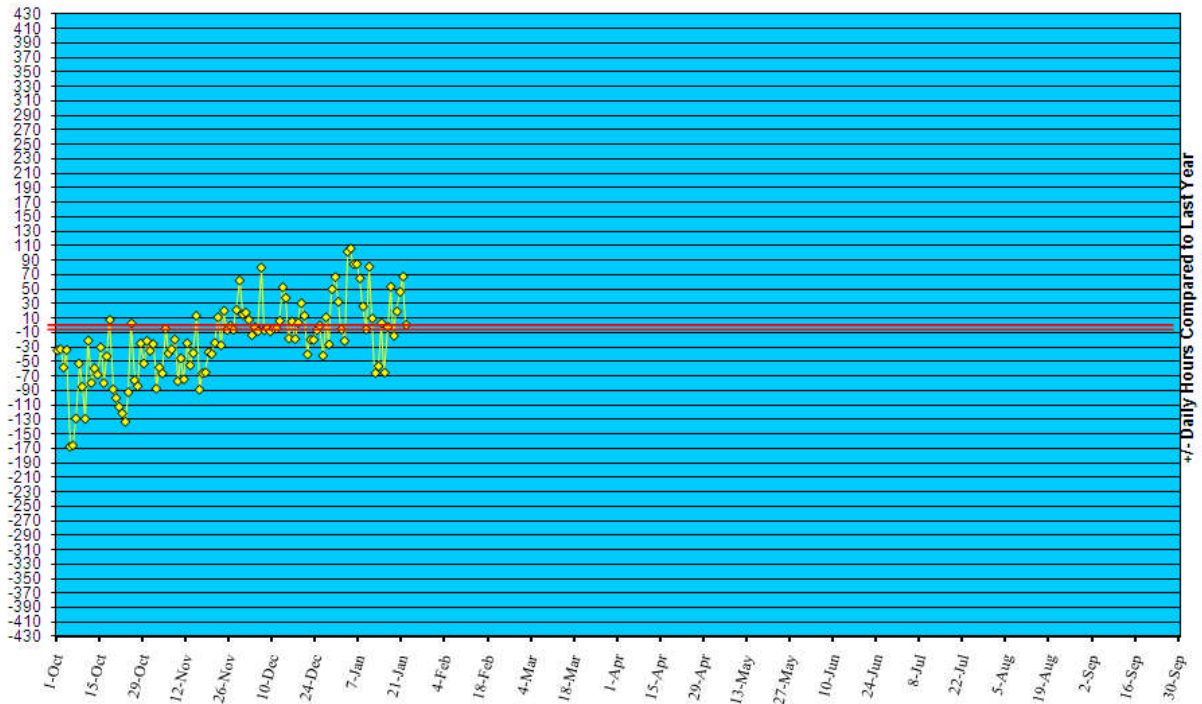


\* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

## **REVIEW OF EMERGENCY DEPARTMENT UTILIZATION**

**YELLOW ALERT TIMES (ED DIVERSION):** The reporting period begins 10/01/10.

### **Statewide Yellow Alert Comparison Daily Historical Deviations October 1, '10 to January 22, '11**



## **REVIEW OF MORTALITY REPORTS**

**Office of the Chief Medical Examiner:** OCME reports no suspicious deaths related to an emerging public health threat for the week.

## **MARYLAND TOXIDROMIC SURVEILLANCE**

**Poison Control Surveillance Monthly Update:** Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in December 2010 did not identify any cases of possible public health threats.

## **REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS**

### **COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):**

<b>Meningitis:</b>	<b><u>Aseptic</u></b>	<b><u>Meningococcal</u></b>
New cases (January 16 – January 22, 2011):	11	0
Prior week (January 9 – January 15, 2011):	16	0
Week#3, 2010 (January 17 – January 23, 2010):	7	0

**Seven outbreaks were reported to DHMH during MMWR Week 3 (January 16 – January 22, 2011):**

#### **5 Gastroenteritis outbreaks**

3 outbreaks of GASTROENTERITIS in Nursing Homes  
2 outbreaks of GASTROENTERITIS in Assisted Living Facilities

#### **2 Foodborne gastroenteritis outbreaks**

1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Private Home  
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Caterer

#### **1 Respiratory illness outbreaks**

1 outbreak of INFLUENZA in a Nursing Home

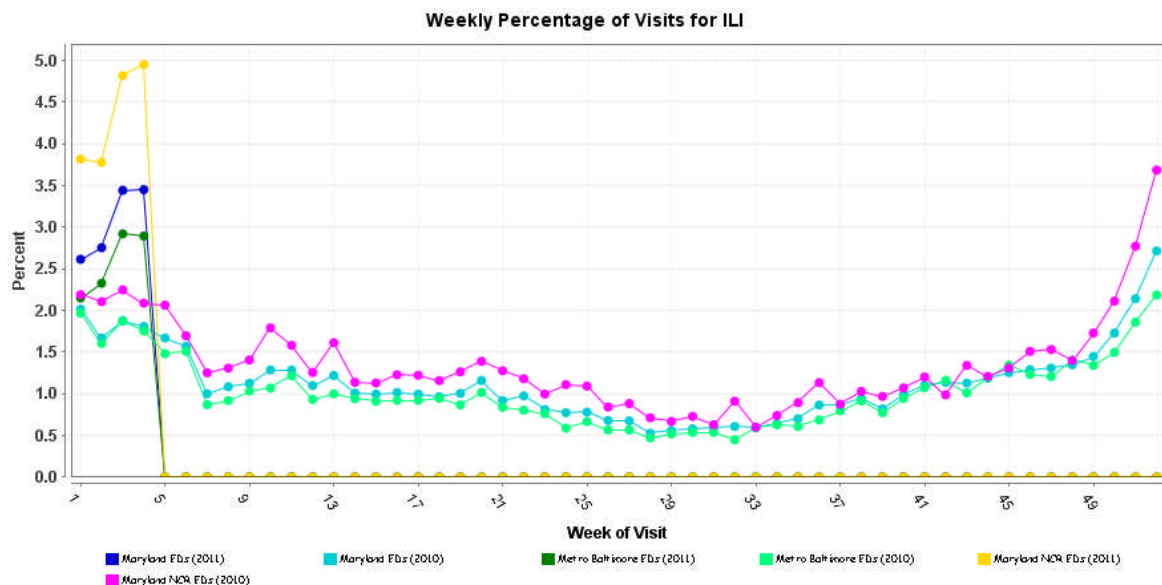
### **MARYLAND SEASONAL FLU STATUS**

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity was WIDESPREAD for Week 3.

### **SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS**

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/sub-syndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.

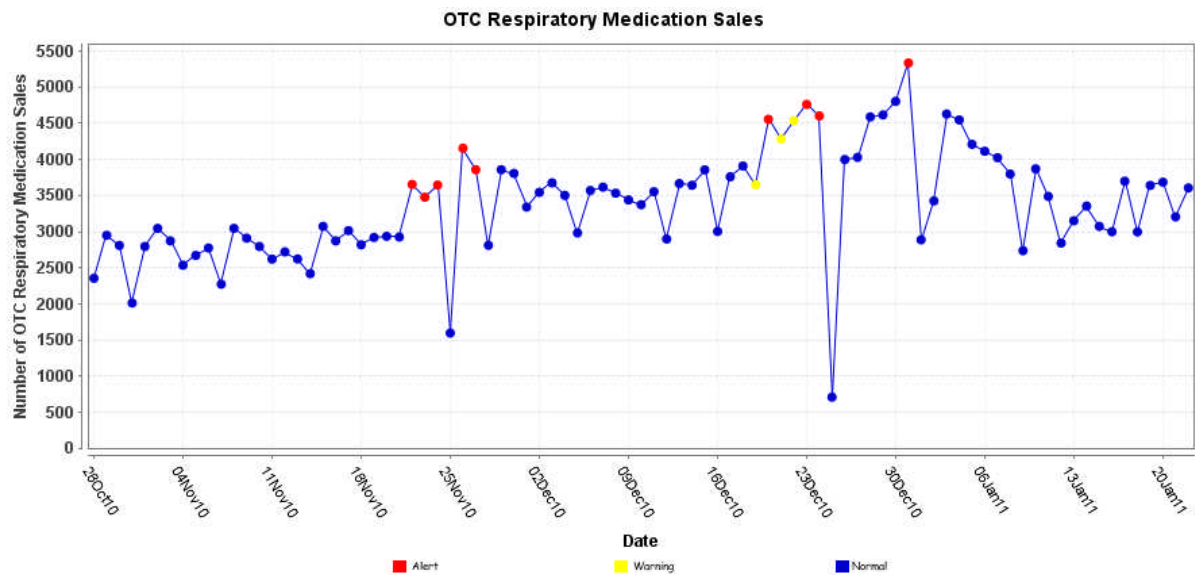


\* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



#### OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



## **PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS**

**WHO update:** The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of January 20, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 518, of which 306 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

**AVIAN INFLUENZA, H5N1, WILD BIRDS (JAPAN):** 21 January 2011, Highly pathogenic H5N1 bird flu has been detected in the corpses of 2 migratory wild ducks found at a reservoir here [Koriyama, Fukushima], prefectural authorities announced on 19 Jan 2011. From [4 to 7 Jan 2011], the prefecture gathered 7 bird corpses from the reservoir and sent them for testing at the National Institute for Environmental Studies in Tsukuba, Ibaraki Prefecture. 4 of the corpses tested positive for Type-A influenza, and further investigation at Hokkaido University in Sapporo found that 2 had the highly pathogenic H5N1 bird flu. The other corpses are still being investigated. The prefecture set up a response center on 19 Jan 2011, and on the morning of 20 Jan 2011 began sending inspectors clad in protective suits to 59 poultry farms in a 10 km [6.2 mile] radius area under supervision that includes neighboring towns. The inspectors are interviewing farmers, looking for signs of contagion such as changes in the death or egg-laying rates of chickens, and checking that farms have anti-contagion measures in place such as nets to keep out wild birds and supplies of disinfectant on hand. Furthermore, nearby roads are being disinfected to prevent possible contagion from bird droppings, and inspectors are watching for any bird corpses in the areas where the ducks migrate to. The reservoir where the duck corpses were found has been disinfected, and the prefecture is stepping up observation for wild birds in agricultural water reservoirs in the city. The reservoir where the duck corpses were found is located in an urban area west of Koriyama Station. According to the Koriyama city water department, the reservoir supplies water to around 22 000 homes. The department says the reservoir, treated with chlorine, presents no danger to humans. Still, to ease the concerns of citizens, it was decided to temporarily use water from nearby Inawashiro lake in place of the reservoir. The discovery of H5N1 bird flu in Koriyama is the 6th confirmed case in the country since October of last year [2010] when it was detected in duck droppings in Wakkanai, Hokkaido. Further cases were confirmed in Yasugi, Shimane Prefecture, Takaoka, Toyama Prefecture, Yonago, Tottori Prefecture, and Izumi, Kagoshima Prefecture.

**AVIAN INFLUENZA, HUMAN (EGYPT):** 20 January 2011, The Ministry of Health of Egypt has announced a new case of human infection of H5N1 avian influenza. A one-year-old male from Alexandria Governorate developed symptoms on 12 Jan 2010 and was hospitalized on 13 Jan 2011. He is in a stable condition. Investigations into the source of infection indicated that the case had exposure to poultry. The case was confirmed by the Egyptian Central Public Health Laboratories, a National Influenza Center of the WHO Global Influenza Surveillance Network (GISN). Of the 121 cases confirmed to date in Egypt, 40 have been fatal.

**AVIAN INFLUENZA (SOUTH KOREA):** 20 January 2011, Seoul said there was a bird flu outbreak at a chicken farm in Paju, northwest of Seoul. The outbreak of the virulent strain of the H5N1 virus is the 30th confirmed case since the 1st was confirmed on 31 Dec 2010. Seoul said all 7000 chickens on the farm have been ordered destroyed, and those within 500 meters are to be destroyed as well. Seoul has destroyed more than 3.8 million birds so far.

## **NATIONAL DISEASE REPORTS**

There are no national disease reports for MMWR Week 3.

## **INTERNATIONAL DISEASE REPORTS**

**UNDIAGNOSED HEMORRHAGIC FEVER (INDIA):** 22 January 2011, Days after 3 cases of Crimean-Congo hemorrhagic fever (CCHF) were detected in Ahmedabad, a 48-year-old resident of Thane [a city to the north of Mumbai] has shown clinical symptoms of [a] viral hemorrhagic fever and is critical. Doctors at Jaslok Hospital where the patient was referred to earlier transferred him to the BMC [Brihanmumbai Municipal Corporation]-run Kasturba hospital on Friday morning [21 Jan 2011]. The disease has so far claimed 3 lives in Ahmedabad in the last few days and has resulted in health authorities screening thousands of people. The mortality rate from CCHF is approximately 90 percent, say doctors, with death occurring in the 2nd week of illness. Consulting physician at Jaslok, Dr Pratik Samdhani told DNA, "Sampat was referred to me last night. He had high fever and was disoriented. He was not responding to the treatment given by the local physician for 6-7 days. His MRI scan revealed that he was bleeding in the brain. Besides, he has a low blood platelets count. His kidney and liver were deranged." The patient, whose dengue, malaria and leptospirosis tests were negative, is on ventilator. "Since patients with CCHF have already been detected in Ahmedabad and the disease is infectious, the patient needed to be kept under 4th degree of isolation. Since Jaslok [hospital] does not have this facility, we decided to shift him to Kasturba Hospital," explained Samdhani. "There is no improvement in his condition."

The patient is a vegetarian and had no contact with livestock. His last visit outside the city was to Shirdi some days ago. "We have recommended Kasturba to give him Ribavirine," Samdhani said. Jaslok Hospital also gave the medication to 47 of its employees, including Dr. Samdhani, as a precautionary measure. "Jaslok has also instructed Kasturba Hospital to send secretion samples to the National Institute of Virology (NIV). This includes nasal swab and sputum," said Dr Samdhani. Samdhani said the the viral infection could either be arboviral or adenoviral [i.e., presumably insect or aerosol aerosol transmitted, as opposed to tick-transmitted?]. Dr. GT Ambe, executive health officer, BMC, said he is not aware about the development. Doctors say that the disease is fatal. Unless it is detected at an early stage, and treated aggressively, the patient dies immediately after. CCHF was successfully identified by the NIV few days ago. The disease is endemic in many countries in Africa, Europe and Asia. In 2001, cases or outbreaks were recorded in Kosovo, Albania, Iran, Pakistan, and South Africa, according to WHO. Doctors said after the virus strikes the patient, there is a breakdown of blood and blood products. The tissues get damaged. Thereafter one gets fever and develops a rash that leads to bleeding. It can rapidly deteriorate to headaches, seizures, convulsions and eventually lead to coma. The patient may also experience irritability, and photophobia (irritation to light). (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**HANTAVIRUS (CHILE):** 22 January 2011, Just today [18 Jan 2011], the death of a woman aged 41, from Los Maitenes sector of the town of Casablanca, from [a] hantavirus [infection] was confirmed. The death occurred on 6 Jan [2011] at the Carlos van Buren Hospital in Valparaíso. This information was confirmed by the Secretariat of the Ministry of Health, being the 1st case of [a] hantavirus [infection] in the community. The victim died of cardiovascular failure. This was confirmed by the Institute of Public Health (ISP), an entity that contacted the family of the deceased to launch prospective monitoring [of their health status]. Moreover, the Casablanca municipality, in conjunction with the Health SEREMI [Regional Ministerial Secretariat], is undertaking various actions to detect, prevent, and control of hantavirus [transmission] in the affected rural area, in order to detect possible infections and to educate the population about measures to be taken. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) \*Non-suspect case

**HANTAVIRUS (CHILE):** 22 January 2011, A child of 3 years 6 months became the 2nd fatal victim of an infection with [a] hantavirus so far in 2011. The Institute of Public Health confirmed that the child died 15 Jan [2011] in the Nacimiento community in BioBio. Following the death of the child, family members must undergo follow-up for 6 weeks, during which tests will be carried out to determine if anyone was infected. This is because Andes virus can be transmitted by direct contact from an infected person to another in very close contact. This case is added to that of a 33-year-old man who died in the Pinto community in Nube province, after working in a cabin that was used as a storage area. Given these cases, the epidemiologist unit of the Health SEREMI, Cecilia Soto, called for the populace to adopt preventive measures, such as ventilation of places that have been closed up and to adequately dispose of trash. She stated that [a] hantavirus infection begins as an influenza manifestation, and later the [clinical] picture becomes complicated to the point that death may result. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) \*Non-suspect case

**HANTAVIRUS (ARGENTINA):** 22 January 2011, A total of 3 cases of hantavirus [infections] were confirmed in the province; meanwhile another 3 suspected cases were discarded, according to information issued by Francisco Garcia Campos, in charge of Epidemiological Coordination. The 3 positive patients are males, infected in the Oran area and were attended in the San Vicente de Paul Hospital in that city. They are from the areas of Pichanal, Rio Blanco and Oran and the infections, according to what could be established, are related to rural and recreational activities. Concerning the patient's developments, the epidemiologist stated that one continues in critical condition in intensive therapy, another is progressing well and was moved to a room in the medical clinic, while the 3rd was released [from the hospital]. (Emerging Infectious Diseases are listed in Category C on the CDC List of Critical Biological Agents) \*Non-suspect case

**LEGIONELLOSIS (MEXICO):** 21 January 2011, The Mexican island of Cozumel, in the Caribbean and just a ferry ride from Playa del Carmen, has reported an outbreak of Legionnaires' disease at 2 popular hotel properties. Travelers were alerted by the Centers for Disease Control and Prevention, which is based in Atlanta. The CDC says that the outbreak is confined to just 2 resorts, the Regency Club Vacation Resort, which is a timeshare property, and the Wyndham Cozumel Resort and Spa (formerly the Reef Club Cozumel). Cancellation fees for current and future guests have been suspended at the Wyndham. Since May of 2008, there have been 9 cases of Legionnaires' disease confirmed among U.S. and Dutch visitors to the resorts. The most recent case was in October of last year [2010], so the outbreak has continued on and off for more than 2 years. A statement from Wyndham's management said the water systems at the resort had been disinfected and have also been "monitored and approved by state and federal government health authorities in Mexico." Cozumel has long been a favorite of Minnesota tourists and is less than 4 hours away, non-stop, from the Minneapolis/St. Paul International Airport via both Delta and Sun Country airlines. It is a more traditional Mexican destination and far different from its lively, non-stop action neighbors to the west, Cancun and Riviera Maya. Cozumel has long been a favorite diving destination for visitors from around the globe. A form of pneumonia, Legionnaires' disease is transmitted by the inhalation of bacteria-contaminated water. Hot tubs, cooling towers, spray misters, shower heads and faucets are a common source of the bacterium. It is not transmitted between people. The disease was named during an outbreak at an American Legion convention in Philadelphia in 1976. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**LEPTOSPIROSIS (AUSTRALIA):** 21 January 2011, A total of 4 people who were in flood-ravaged Theodore [a village in central Queensland] in the past few weeks have been confirmed to have a severe bacterial infection. Theodore Dr. Bruce Chater said there were 4 confirmed and one suspected case of leptospirosis. "I haven't seen a case of Leptospirosis in 20 years," said the doctor who has been servicing the community since 1981. "Probably because it's been dry for 20 years. In this case, it was very severe." Dr Chater said one person had been in Theodore just after the floods and had gone back to Brisbane and presented to health professionals in the state's capital. He said another person was transferred to Brisbane while 2 people were treated in Moura Hospital [located in the town of Moura, 43km [26.7 miles] north of Theodore. Dr. Chater said there were concerns for the patients and what people might get it. He said there were no more concerns in the community as the mud had now dried. Dr. Chater said people started presenting with symptoms the day after the community was allowed back into Theodore. "We came back on the

Friday and they started getting sick on the Saturday," he said. The infection is commonly transmitted to humans by allowing water that has been contaminated by animal urine to come in contact with unhealed breaks in the skin, the eyes, or with the mucous membranes. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**YELLOW FEVER (UGANDA):** 19 January 2011, On 23 Dec 2010, the Minister of Health in Uganda reported 3 laboratory confirmed cases of yellow fever, detected through a special investigation following an outbreak in the country in October 2010. The cases were reported in 3 districts of Abim, Agago, and Kitgum near the border with South Sudan. In total, 5 cases have been laboratory confirmed for yellow fever by the US Centers for Disease Control and Prevention (3 by RT-PCR, 1 by ELISA method, and 1 by histopathology). A total of 226 cases compatible with the clinical case definition including 53 deaths have been reported by 12 districts in northern Uganda. Following field investigations by the Ministry of Health with the support of WHO, Medecins Sans Frontieres (MSF), the US, and other partners, a decision was made to conduct a reactive mass vaccination campaign in 5 districts (Abim, Agago, Kitgum, Lamwo, and Pader). On 31 Dec 2010, WHO deployed 3 additional experts to support risk assessment, and planning and implementation of control measures, which include strengthening of the surveillance system and the vaccination campaign. A request for one million doses of vaccine was submitted to the International Coordinating Group on Yellow Fever Vaccine Provision (YF-ICG) on 4 Jan 2011 and the vaccine from the GAVI [Global Alliance for Vaccines and Immunisation] funded emergency stockpile was shipped to the country on 11 Jan 2011. The vaccination campaign will start on 22 Jan 2011, targeting a population of over 905,000 people. (Viral Hemorrhagic Fever is listed in Category A on the CDC List of Critical Biological Agents) \*Non-suspect case

**LEGIONELLOSIS (AUSTRALIA):** 19 January 2011, The Department of Health has been notified of a 4th Western Australian diagnosed with legionnaires' disease following travel to Bali since December 2010. Acting chief health officer, Dr Andy Robertson, said while the exact source of the disease remained unknown, all the Western Australians recently diagnosed had stayed at the Ramayana Resort and Spa Hotel in Central Kuta. "The Indonesian Government has been advised of the Australian cases by the Australian Government, and is working with the World Health Organization to investigate the possible source of the disease," Dr. Robertson said. Dr. Robertson said the early symptoms of legionnaires' disease are typically similar to severe 'flu-like' illness. "Early symptoms may include fever, chills, muscle soreness, headaches, tiredness, reduced appetite, and diarrhea, along with dry cough and breathlessness," Dr. Robertson said. The Department of Health is advising Western Australians who have recently returned from Bali, and have developed flu-like symptoms within 10 days, to contact their GP. "Legionnaires' disease is treated with specific antibiotics, and while most people recover, some people may develop severe pneumonia requiring hospitalization." Legionnaires' disease most often affects middle-aged and elderly people, particularly those who smoke or who have lung disease, diabetes, kidney disease, or a weakened immune system. Legionella pneumophila is a type of bacteria commonly transmitted by the inhalation of water droplets from contaminated warm water environments such as: air conditioning cooling towers in large buildings and evaporative air conditioners; showers and warm water systems; spa pools; misting or droplet sprays, and fountains. Legionnaires' disease cannot be caught from other people or from animal contact. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**CHOLERA (HAITI):** 18 January 2011, Haiti's cholera death toll has risen to 3,759, government figures showed Thu 13 Jan 2011, but daily fatalities linked to the persistent epidemic appeared to trend downward in the 1st days of 2011. The figure, which marks the total toll from the discovery of the outbreak in mid-October 2010 through 7 Jan 2011, is just over 100 more than the Health Ministry's previous toll released one week ago. Total infections rose to 181 000 in Haiti, including 101 000 people who have been treated in hospital. A Health Ministry graphic showed deaths between 1 and 7 Jan 2011 averaging about 17 per day, the lowest average of any period since the outbreak. About 12 deaths were recorded on 7 Jan 2011, the epidemic's smallest daily toll. The numbers for the period are not final, however. The ministry retroactively updates daily death tolls when new data is gathered. As recently as 27 Dec 2010, there were more than 70 recorded deaths, and 19 Dec 2010 marked a daily high of more than 105 fatalities, according to the ministry. Haiti's Thursday [13 Jan 2011] figures put the mortality rate at 2.1 percent. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

**CHOLERA (DOMINICAN REPUBLIC):** 18 January 2011, Canals, rivers, and irrigation ditches along the Dominican Republic's border region were likely responsible for cholera spreading to dozens who were exposed to the contaminated waters, health officials said. The Ministry of Health said about 60 percent of the 146 cases analyzed were traced back to those water sources. A total of 154 cases have been reported. About 65 percent of cholera patients are agriculture workers exposed to contaminated water, the ministry said. No deaths have been reported in the Dominican Republic. More than half of the cases were reported in provinces on the Haitian border that are home to 2 rivers that tested positive for the bacteria. One of those rivers, the Artibonito, originates in Haiti. (Water Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) \*Non-suspect case

## **OTHER RESOURCES AND ARTICLES OF INTEREST**

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: <http://preparedness.dhmd.maryland.gov/>

Maryland's Resident Influenza Tracking System: <http://dhmd.maryland.gov/flusurvey>

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**NOTE:** This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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